Dark Market: Digital Asset Marketplace Lite Paper

Introduction:

Dark Market is a cutting-edge digital asset marketplace that leverages blockchain technology to provide a transparent, secure, and efficient platform for trading digital assets. At its core are the revolutionary "Bid-To-Earn" dynamics, ensuring a rewarding experience for both buyers and sellers.

Table of Contents:

Background:

Bid-To-Earn Research -

The "Bid-To-Earn" concept is rooted in incentivizing active participation in auctions. Traditional auction models often reward only the winning bidder, leaving other participants empty-handed despite their engagement. Bid-To-Earn dynamics aim to change this by ensuring every participant, irrespective of the outcome, receives some form of reward. This not only encourages more participation but “gamifies” the digital asset selling experience to attract more buyers and sellers.

Current Web3 Marketplaces -

Web3 represents a decentralized internet based on blockchain technology. Web3 marketplaces are decentralized platforms where goods and services are traded without a central authority. Transactions on Web3 marketplaces are executed using smart contracts on a blockchain, ensuring trustless, transparent, and tamper-proof exchanges.

The Bid-To-Earn Auction Model:

Bid-To-Earn auctions are ascending auctions where bidders are incentivized when outbid. This means participants either win the auction or leave with more money than they started with. Each new bid must surpass the previous bid by a minimum step. When a bidder is outbid, they receive an incentive, calculated using an incentive function, in addition to their bid refund. The auction is time-limited, with the highest bidder at the end emerging as the winner. If a bid is placed towards the auction's end, additional time is added. All bids are public, and the auction's revenue (going to the seller) equals the final bid minus the incentives distributed to losing bidders.

A unique feature of the Bid-To-Earn auction model is the "Warm-Up" period. This is a designated time, typically ranging from 10 minutes to 1 hour, at the start of the auction. During this period, bids can be made, but no incentives are awarded to outbid participants. The primary purpose of this warm-up phase is to deter bots from being the first-to-bid on all auctions, thereby preventing them from collecting incentives when outbid. Additionally, this period encourages bidders to place higher initial bids, ensuring they stand a chance to receive an incentive if they remain the highest bidder post the warm-up phase.

Benefits of the Bid-To-Earn Auction Model:

1. **Higher Bids: Bidders are likely to place higher bids in a Bid-To-Earn auction compared to traditional auctions. The higher the incentive function, the higher the bid.

2. **Higher Selling Price: Bid-To-Earn auctions typically result in a higher selling price than traditional auctions. The higher the incentive function, the higher the selling price.

3. **Increased Revenue for Sellers: After distributing incentives to bidders, Bid-To-Earn auctions often net more revenue for sellers than traditional auctions. The higher the incentive function, the higher the revenue.

4. **Fewer Bids: Bid-To-Earn auctions tend to have fewer bids than traditional auctions. The higher the incentive function, the fewer bids an auction receives.

5. **Higher Initial Bids: The first bid in a Bid-To-Earn auction is typically higher than in traditional auctions. The higher the incentive function, the higher the initial bid.

6. **Faster Selling Price Achievement: The selling price is reached faster in a Bid-To-Earn auction than in traditional auctions. The higher the incentive function, the faster the selling price is achieved.

Gamification of Buying and Selling:

The Bid-To-Earn auction model introduces an element of 'gamification' to the buying and selling process. Bidders are not just participating to win; they're also playing to earn. This dynamic makes the auction process more engaging and competitive, attracting a broader audience and ensuring active participation. For sellers, this means their assets are exposed to a more extensive and engaged audience, potentially leading to higher final sale prices.

Dark Market Auction Contract Overview:

Dark Market operates on a comprehensive Smart Contract that facilitates the auctioning of digital assets. Key features include -

- Auction Creation: Sellers can initiate an auction by detailing the starting price, duration, and the digital assets up for grabs.
- Bidding: Interested parties can place bids on active auctions. If a bid is placed in the final moments of an auction, the auction's end time is extended, ensuring fair competition.
- Finalization: Post the auction's conclusion, it can be finalized, transferring the digital assets to the highest bidder and distributing the funds as per the contract's logic.
- Cancellation: Sellers have the flexibility to cancel an auction if no bids have been placed. As a safety measure, the contract owner can also cancel specific auctions.

Case Study:

Aavegotchi's Use of Bid-To-Earn Auctions -

Overview: Aavegotchi is a DeFi-enabled NFT collectibles game developed by Pixelcraft Studios. It merges Decentralized Finance (DeFi) and NFTs to offer a financially-incentivized gaming experience.

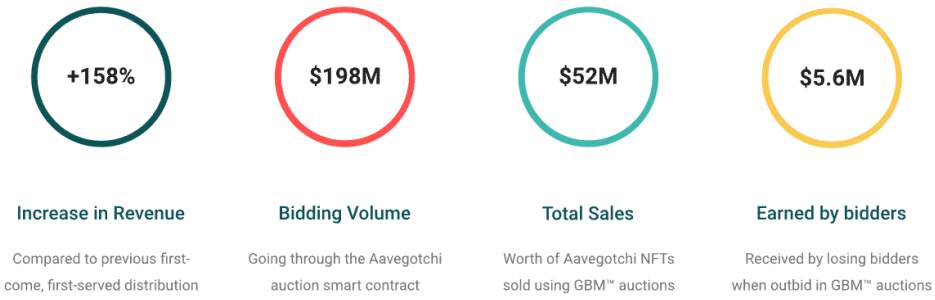
Challenge: Aavegotchi previously utilized a fixed price, first-come-first-served method for NFT distribution. This approach favored bots and left many community members feeling disadvantaged. The challenge was to find a more equitable, engaging, and efficient method of distributing NFTs to the community.

Solution: Bid-To-Earn (also known as GBM) transformed Aavegotchi's sales into rewarding experiences. Participants either secure the NFT or earn money, ensuring every drop is equitable, enjoyable, and lucrative, thereby increasing revenue for Aavegotchi.

Situation: In late 2020, as NFTs gained traction, projects sought various distribution methods. Many of these strategies had flaws, leading to mishandled or exploited drops. Aavegotchi's initial NFT drop in March 2021, which used the first-come, first-served, fixed-price method, was successful but favored bots and tech-savvy users. This led to community members having to buy NFTs at higher prices on secondary markets.

Aavegotchi's Experience: Aavegotchi transformed their NFT drops into inclusive, celebratory events. Most price discovery occurred during the high-energy initial auction hours. Post-auction secondary market prices weren't inflated, allowing Aavegotchi to capture the items' current market value, significantly boosting revenue.

Future Outlook: After witnessing the immense success of transitioning from a first-come-first-served model to Bid-To-Earn, Aavegotchi plans to use Bid-To-Earn for all future NFT sales.



Conclusion:

Dark Market, with its innovative Bid-To-Earn dynamics, is set to redefine the digital asset marketplace landscape. As the digital asset universe continues to expand, Dark Market stands as the premier platform for trading these assets, ensuring a rewarding and gamified experience for all stakeholders. Dark Market will be a multi-chain marketplace that allows numerous assets to be bundled and auctioned together, along with the ability to expand in the future to any blockchain and type of digital asset class.

References:

- Cryptograph White Paper
- Edouard Bessire, "Incentivised Bidding: The GBM Auction", Medium
- Computer implemented method and system for updating a database system for a blockchain version control system; computer implemented methods of auctioning an item for a seller, and computer implemented method of updating a smart contract
- Aavegotchi Case Study: GBM Auctions

Disclaimer:

Dark Market will be using completely novel code and concepts, drawing on past research and current projects in Web3. Some current auction models called the Gonnaud-Bessire-McDonaugh (“GBM”) auctions are being developed and implemented by other market participants. Dark Market intends to be completely open-source and will be available to everyone.